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**FRIDAY MORNING
JULY 7, 1989**

Paper Session 4

NEUROLINGUISTICS - APHASIA

9:00-10:40/Margaux 2

Chair: Yves Yoanette

P. HAGOORT. Decay of Syntactic Information in Language Comprehension of Agrammatic Aphasics.

This study tests the hypothesis that, in agrammatic patients, syntactic information, as specified by free standing and bound closed class morphemes, decays more rapidly than in the intact language processing system. This reduced temporal window for processing of syntactic information can lead to an impairment in establishing structural relations between the words in a sentence. In the experiment, the number agreement between the grammatical subject and the finite verb was violated in one version of the sentences. In addition, the distance between subject-NP and the critical finite verb was varied. The task was identical word monitoring. Control subjects showed longer monitoring latencies for sentences with agreement violation, both in the short and the long distance conditions. Some agrammatic patients showed sensitivity to the agreement violation in the short, but not the long distance condition. The results for these patients are in line with a faster decay of syntactic information in language comprehension.

G. GAINOTTI, A. DANIELE, and M. C. SILVERI. The Nature of Lexical-Semantic Impairment in Alzheimer's Disease (AD).

Lexical-semantic disorders in AD patients have been considered as the result of either a loss of information, or an inability to access an intact semantic representation. Because consistency of errors over the same items is usually considered as proof of the "loss of information" hypothesis, 15 AD patients and 10 age-matched normal controls were administered a visual naming task and a verbal association task that were constructed using the same set of stimuli. It was hypothesized that, if naming errors in AD patients are due to a loss of information in the semantic representation of the not-named items, these patients should perform worse with the semantic associates of the not-named items, than with those of the correctly named items. Results confirmed this hypothesis in AD patients with moderate anomia, showing that in the early stages of the demential dissolution, naming errors can be traced back to a loss of information at the level of the semantic representation subtending the misnamed items.

H. R. VAN DONGEN, M. C. B. LOONEN, and M. BLAUW-VAN MOURIK. Acquired Childhood Aphasia: Outcome 1 Year Postonset.

A group of 28 aphasic children was investigated to determine the effects of age at onset, etiology, severity, and bilaterality of lesion, and type of aphasia on its course and outcome. Analysis of spontaneous speech and tests of auditory verbal comprehension were used to determine the presence of aphasia. The severity of the cerebral lesion was assessed through the application of a rating scale for CT scans. It is concluded that most of the children were not recovered completely 1 year postonset. Recovery was significantly different according to etiological varieties. Complete recovery was seen in the majority of our traumatic cases. In contrast, bilaterality of the cerebral lesion appeared to show a reverse correlation with recovery.

T. BAK, G. BLANKEN, R. SPRENGELMEYER, and C. W. WALLECH. Syndromes of Acute Aphasia as suggested by Cluster Analysis in 106 patients.

Patients suffering from aphasia ($n=106$) were investigated within the first 6 weeks postincident with a shortened experimental version of the Aachen Aphasia Test. Their results were submitted to cluster analysis, which revealed the following symptom patterns: (1) mild aphasia with only mild deficits in all modalities; (2) nonfluent aphasia with largely intact repetition; (3) nonfluent or fluent aphasia with neologisms/jargon; (4) (mostly) nonfluent aphasia of moderate degree without outstanding features; and (5) severe aphasia with and (6) without repetitive phenomena. A more detailed analysis revealed that clusters were formed mainly on the basis of variance in degree of severity, degree of phonological impairment, presence of repetitive phenomena, repetition and comprehension. Large dissociations between level of performance in different language modalities seem to indicate instability of symptomatology and prospect of rapid improvement.

J. L. NESPOULOUS and M. DORDAIN: Agrammatism or When the "Automatic" Processing of Grammatical Morphemes is at Fault.

Two verbal production tasks were devised in order to assess the plausible interaction of both attentional and linguistic processes in the surface manifestations of a French-speaking, agrammatic patient (Nespoulous et al., 1988). These tasks involve the repetition and oral reading of set phrases vs. newly coined phrases of similar structural complexity (i.e., /N of N/ phrases). Our (attentional) hypothesis was that the patient would make more errors (i.e., omissions) in producing set phrases (requiring less attention), than newly coined phrases (more demanding).